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AUTHOR: Dzhafarov, A. S.

TITLE: On the theory of best approximation of functions of many variables by integral functions of finite power

PERIODICAL: Akademiya nauk SSSR, Doklady, v. 142, no. 2, 1962,
266-269

TEXT: Let $\varphi(x)$ be continuous in the Euclidean space E_n , $\varphi(x) > 0$
 and $\int_0^\infty \frac{\ln \varphi(t) dt}{1+t^2} < \infty$ where $\sup_{x, \xi \in E_n} \frac{\varphi(x+\xi)}{\varphi(x)} = \infty$. Let $L_{p,\varphi}^{(n)}$ ($1 \leq p \leq \infty$)
 denote the Banach space, of all functions $f(x)$ continuous in E_n , for
 which $\left| \frac{f(x)}{\varphi(x)} \right|^p$ is Lebesgue-integrable over E_n . Let $\omega_{sx(i)}(\delta, f)^{(n)}$
 $(0 \leq \delta < \infty)$ be the continuity modulus of order s of $f(x) \in L_{p,\varphi}^{(n)}$
 relative to $x^{(i)} = (x^{(i)}, \dots, x_{n_i}^{(i)}) \in E^{(i)}$, $E_n = E^{(1)} \times \dots \times E^{(k)}$.
 Let $\frac{\partial f(x)}{\partial x^{(i)}}$ be the generalized derivative in the sense of S. L. Sobolev

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in the direction l_i . Let $g_{\varphi, x^{(i)}} \in L_{p, \varphi}^{(n)}$ be entire functions of $(x_1^{(i)}, \dots, x_{n_i}^{(i)})$ with the spheric power $\leq \varphi$, i.e., for almost all fixed $x^{(1)}, \dots, x^{(i-1)}, x^{(i+1)}, \dots, x^{(k)}$, every $\varepsilon > 0$ and all complex $z^{(i)} = (z_1^{(i)}, \dots, z_{n_i}^{(i)})$ is

$$\left| g_{\varphi, x^{(i)}}(x^{(1)}, \dots, x^{(i-1)}, z^{(i)}, x^{(i+1)}, \dots, x^{(k)}) \right| \leq A_\varepsilon (\varphi + \varepsilon) |z^{(i)}|^*$$

✓

where $|z^{(i)}|^* = \sqrt{|z_1^{(i)}|^2 + \dots + |z_{n_i}^{(i)}|^2}$ and $g_{\varphi, x^{(1)}, \dots, x^{(k)}}$

is entire, having the property that for arbitrary complex $z^{(1)}, \dots, z^{(k)}$

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$$\left| g_{v_1 x^{(1)}, \dots, v_k x^{(k)}}(z^{(1)}, \dots, z^{(k)}) \right| \leq A \exp \left[\sum_{i=1}^k (v_i + \epsilon) |z^{(i)}|^* \right].$$

Given are the following results on the best approximation $A_{v x^{(i)}}(f)_{p,\varphi}^{(n)}$ of the function f by the $g_{v x^{(i)}}$ and the best approximation

$A_{v_1 x^{(1)}, \dots, v_k x^{(k)}}(f)_{p,\varphi}^{(n)}$ of f by the $g_{v_1 x^{(1)}, \dots, v_k x^{(k)}}$.

Theorem 1: If $f(x) \in L_{p,\varphi}^{(n)}$ has the derivative $\partial^{r_i} f / \partial^{l_i} x^{(i)} \in L_{p,\varphi}^{(n)}$

for arbitrary l_i in E_n , then

$$A_{v_1 x^{(1)}, \dots, v_k x^{(k)}}(f)_{p,\varphi}^{(n)} \leq d \sum_{i=1}^k \frac{1}{v_i^{r_i}} \sup_{l_i} \omega_{s_i x^{(i)}} \left(\frac{1}{v_i}, \frac{\partial^{r_i} f}{\partial^{l_i} x^{(i)}} \right)_{p,\varphi}^{(n)}$$

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where $\nu_1 \geq 1$ and d does not depend on f, ν_1, \dots, ν_k .

Theorem 2: Let $s_i, \nu_i \leq \delta^{-1}$ be natural numbers, $0 < \alpha_i < s_i$,
 $\Psi_i(\delta) \in N^{\alpha_i}$ see (Ref. 5: S. B. Stechkin, Izv. AN SSSR, ser. matem.,
15, 219(1951)), then

$$\omega_{s_i x(i)}(\delta, f)_{p,\varphi}^{(n)} \leq [c_2 M_1 + c_2 \|f\|_{p,\varphi}^{(n)}] \Psi_i(\delta)$$

follows from

$$^A \nu_1 x^{(1)}, \dots, \nu_k x^{(k)}_{p,\varphi}^{(f)(n)} \leq \sum_{i=1}^k M_i \Psi_i \left(\frac{1}{\nu_i + 1} \right).$$

Theorem 3: Let r be a natural number and let the series

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$$\sum_{j=1}^{\infty} j^{r-1} A_{j-1, x^{(i)}}(f)_{p, \varphi}^{(n)}$$
 converge for the function f. Then

$$\begin{aligned} \omega_{xx^{(i)}} \left(\delta, \frac{\partial^r f}{\partial l_i} \right)_{p, \varphi}^{(n)} &\leq c_4 \left\{ v^{-(r+s)} \sum_{l=1}^v l^{r+s-1} A_{l-1, x^{(i)}}(f)_{p, \varphi}^{(n)} + \right. \\ &\quad \left. + v^{-s} \|f\|_{p, \varphi}^{(n)} + \sum_{l=v+1}^{\infty} l^{r-1} A_{l-1, x^{(i)}}(f)_{p, \varphi}^{(n)} \right\} \end{aligned}$$

for arbitrary natural s, $v \leq \delta^{-1}$ and c_4 does not depend on l_i .

Theorem 4 is a generalization of theorem 1 on functions $f \in L_{p_i, \varphi}^{(n)}$
 with $\partial^{r_i} f / \partial l_i^{r_i} \in L_{p_i, \varphi}^{(n)}$, where l_i is a direction in $E^{(i)}$. It states
 the existence of a system of functions $v_1 x^{(1)}, \dots, v_k x^{(k)} \in L_{p_i, \varphi}^{(n)}$

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where v_i can also be ∞ , and for which $\|f - G\|_{p_1, \varphi}^{(n)}$ is bounded from above in a certain way by the continuity modulus.

The author mentions: S. M. Nikol'skiy, S. N. Bernshteyn, S. L. Sobolev.

There are 9 Soviet-bloc references.

ASSOCIATION: Institut matematiki i mekhaniki Akademii nauk Azerb SSR
(Institute for Mathematics and Mechanics of the Academy of Sciences Azerb SSR)

PRESENTED: August 28, 1961, by A. N. Kolmogorov, Academician

SUBMITTED: July 21, 1961

X

Card 6/6

DZHAFAROV, A.S.

Imbedding theorems involving weight. Dokl. AN SSSR 142 no.3:514-
517 Ja '62. (MIR 1962)

1. Institut matematiki i mekhaniki AN AzerbSSR. Predstavлено
академиком А.Н.Колмогоровым.
(Weight functions)

DZHAFAROV, A.S.

Theory of the best approximation of functions of several variables by means of entire functions of finite power.
Dokl. AN SSSR 142 no.2:266-269 Ja '62. (MIRA 15:2)

1. Institut matematiki i mehaniki AN Azerbaydzhanskoy SSR.
Predslovleno akademikom A.N.Kolmogorovym.
(Functions of several variables)
(Functions, Entire)

IBRAGIMOV, I.I.; DZHAFAROV, A.S., red.; DOLGOV, V., red. izd-va;
POGOSOV, V., tekhn. red.

[Extremum properties of integral functions of finite order]
Ekstremal'nye svoistva tselykh funktsii konechnoi stepeni.
Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1962. 314 p.
(MIRA 16:1)
(Functions, Entire)

DZHAFAROV, A.S.

Order of approximation of functions by a family of linear
integral operators. Izv. AN Azerb.SSR.Ser. fiz.-mat.
i tekhn.nauk no.3:3-18 '62. (MIRA 15:9)
(Functions, Continuous) - (Operators (Mathematics))

GADZHIYEV, A.D.; DZHAFAROV, A.S.; LABSKER, L.G.

Asymptotic value of approximation of functions by a family
of linear operators. Izv. AN Azerb.SSR.Ser. fiz.-mat. i
tekh.nauk no.3:19-28 '62. (MIRA 15:9)
(Functions, Continuous) (Operators (Mathematics))

DZHAFAROV, A.S.

Some direct and inverse theorems on best approximation in the
mean of functions of several variables, and theorems on imbedding
with weight. Trudy Inst. mat. i mekh. AN Azerb. SSR 2:5-23 '63.
(MIRA 16:1Q)

DZHAFAROV, A.S.

Inequalities between various weight norms for integral functions
of the exponential type. Izv. AN Azerb. SSR. Ser. fiz.-mat.
i tekhn. nauk no.2:17-25 '63. (MIRA 16:10)

DZHAFAROV, A.S.

Generalization of the inequalities of Ehrenpreis, Malgrange,
Hormander, and Rosenbloom for integral functions of the
exponential type. Dokl. AN Azerb. SSR 19 no.5:3..6 '63.
(MIRA 17:2)

1. Institut matematiki i mekhaniki AN AzSSR. Predstavлено
академиком AN AzSSR Z.I. Khalilovym.

DZHAFAROV, A.S.

Some theorems on the best approximation of functions by integral
functions of finite power. Dokl. AN Azert. SSR 19 no.10;3-7 '63.
(MIRA 17:6)

1. Institut matematiki i mehaniki AN AzSSR. Predstavleno
akademikom AN Azerbaydzhanskoj SSR Z.I. Khalilovym.

DZHAFAROV, A.S.

Imbedding theorems for generalized Nikol'skii classes. Uch zap. AGU.
Ser. fiz.-mat. nauk no. 2:45-49 '63.
(MIRA 18x1)

IBRAGIMOV, I.I.; DZHAFAROV, A.S.

Evaluation of a differential operator in the class of integral
functions of finite power. Dokl. AN SSSR 152 no.3:533-536 S
'63. (MIRA 16:12)

1. Institut matematiki i mekhaniki AN AzerbSSR. Predstavлено
академиком V.I.Smirnovym.

DZHAFAROV, Arif S.

Some inequalities with weight for integral functions of infinite power in Orlicz spaces. Izv. AN Azerb. SSR. Ser. fiz.-tekhn. i mat. nauk no.2:3-12. '64.

Absolute convergence of Fourier--Laplace series. Ibid.: 43-47

(MIRA 17:10)

DZHAFAROV, Arif S.

Absolute convergence of Fourier series in terms of bounded functions. Dokl. AN Azerb. SSR 20 no.8:11-16 '64.

(MIRA 17:12)

1. Institut matematiki i mekhaniki AN AzerSSR. Predstavleno akademikom AN AzerSSR Z.I. Khalilovym.

DZHAFAROV, A.S.

Inequalities with weight for integral functions of finite power. Dokl. AN Azerb. SSR 20 no.12:3-6 '64. (MIRA 18:4)

1. Institut matematiki i mekhaniki AN AzerbSSR.

DZHAFAROV, A.S.

Imbedding theorems for classes of functions with differential properties in the norms of special spaces. Dokl. AN Azerb. SSR 21 no.2:10-14 '65.
(MIRA 18:5)

1. Institut matematiki i mekhaniki AN AzerSSR.

DZHAFAROV, Arif S.

Deviation of harmonic functions from their boundary values. Izv.
AN Azerb. SSR. Ser. fiz.-tekhn. i mat. nauk no.4:11-13 '64.
(MIRA 18:3)

L 00540-66 EWT(d)/T IJP(c)
ACCESSION NR: AP5023875

UR/0042/64/019/006/0147/0154

AUTHOR: Dzhafarov, A. S.; Ibragimov, I. I.

44,55

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3

TITLE: Some weighted inequalities for integral functions of finite degree

SOURCE: Uspekhi matematicheskikh nauk, v. 19, no. 6, 1964, 147-154

TOPIC TAGS: integral function, function analysis

ABSTRACT: Exact inequalities of S. N. BERNSTEIN and S. M. NIKOL'SKIY are proved for integral functions of finite degree in terms of norms containing a weight.
Orig. art. has 39 formulas.

ASSOCIATION: none

SUBMITTED: 20Feb60

ENCL: 00

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OTHER: 000

JFRS

Card 1/1

IBRAGIMOV, I.I., otv. red.; DZHAFAROV, A.S., red.; MAMEDOV, R.G.,
red.; LABSKER, L.G., red.

[Studies on the current problems in the constructive
theory of functions] Issledovaniia po sovremennym proble-
mam konstruktivnoi teorii funktsii. Baku, Izd-vo "N
Azerbaidzhanskoi SSR, 1965. 637 p. (MIR: 19:1)

1. Vsesoyuznaya konferentsiya po konstruktivnoy teorii
funktsiy, 2d, Baku, 1962.

DZHAFAROV, B.A.

Seasonal dynamics of the accumulation of shed leaves and decomposition of litter in beech forests on the southern slope of the Greater Caucasus. Izv. AN Azerb. SSR. Ser. biol. i med. nauk no.6:109-120 '60. (MIRA 14:9)
(AZERBAIJAN--BEECH) (FOREST LITTER)

DZHAFAROV, B.A.

Variation in the ash content of beech and hornbeam leaves as a function
of altitude. Dokl. AN Azerb.SSR 16 no.8:789-792 '60. (MIRA 13:9)

1. Institut pochvovedeniya i agrokhimii AN AzerSSR. Predstavлено акад.
AN AzerSSR G.A. Aliyevym.
(Plants--Assimilation) (Leaves)

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DZHAFAROV, B.A.

Dynamics of available nutritive substances in mountain forest soils at different elevations in beech forests. Dokl. AN Azerb. SSR 17 no. 3:237-241 '61. (MIRA 14:5)

1. Institut pochvovedeniya i agrokhimii AN AzerbSSR. Predstavлено akademikom AN Azərbaydzhanskoy SSR G.A. Aliyevym.
(Caucasus—Forest soils)

DZHAFAROV, B.A.

Effect of beech forests growing at different altitudes on the
dynamics of soil moisture. Izv.AN Azerb.SSR.Ser.biol.i med.nauk
no.3:99-108 '62. (MIRA 15:9)
(FOREST INFLUENCES) (ZAKATALY PRESERVE--SOIL MOISTURE)

ZAMANOV, Kh.D.; GASANOV, M.M.; DZHAFAROV, B.S.

Hydrochemical characteristics of the rivers in the Lenkoran' area. Uch.zap. AGU. Geol.-geog.ser. no.6:31-40 '59.
(MIRA 15:9)
(Azerbaijan--Rivers)

DZHAFAROV, B.S.

Annual distribution of the mean runoff of the rivers of the north-eastern part of the Lesser Caucasus over a period of many years.
Uch.zap.AGU.Ser.geol.-geog.nauk no.5:59-70 '61. (MIRA 16:9)

GASANOV, M.M.; VELIYEV, N.A.; DZHAFAROV, B.S.

Thermal regime of the rivers of the Lesser Caucasus.
(Azerbaijan S.S.R.). Uch.zap.AGU.Geol.-geog.ser. no.3:79-89
'60. (MIRA 14:6)
(Azerbaijan--Rivers--Temperature)

DZHAFAROV, B.S.

Vertical zoning of source materials of rivers in the northeastern part of the Lesser Caucasus. Izv.AN Azerb.SSR.Ser.geol.-geog. nauk i nefti no.3:119-122 '62. (MIRA 15:12)
(Caucasus--Rivers)

DZHAFAROV, B.S.

Runoff of snow waters in the northeastern part of the Lesser
Caucasus. Trudy TbilINIGAI no.13:90-92 '63. (MIRA 18:8)

1. Institut geografii AN Azerbaydzhanskoy SSR.

DZHAFAROV, Ch.D.

Morphologic characteristics of pyrite crystals in the
Gekgiundurskoye deposit of the Nakhichevan A.S.S.R. Uch.zap. AGU.
Geol.-geog.ser. no.6:11-18 '59. (MIRA 15:9)
(Ordubad District—Pyrite crystals)

DZHAFAROV, Ch.D.

Ore formation in the Sukharny Log region (Salair). Dokl.AN
Azerb.SSR 15 no.3:231-234 '59. (MIRA 12:5)

1. Zapadno-Sibirskoye geologicheskoye upravleniye. Predstavлено
академиком АН АзербССР М. А. Кашкайем.
(Salair Ridge--Ore deposits)

DZHAFAROV, Ch.D.

Temperature of the formation of fluid-gas inclusions in pyrite
crystals from the Paragachay and Gekgyundur deposits in the
Nakhichevan A.S.S.R., Dokl. AN Azerb. SSR 17 no.8:701-705 '61.

(MIRA 14:10)

1. Institut geologii AN AzerbSSR. Predstavleno akademikom
AN Azerbaydzhanskoy SSR M.A. Kashkayem.

(Nakhichevan A.S.S.R... Pyrites)
(Crystals. Growth)

DZHAFAROV, Ch.D.

Morphology of pyrite crystals from the deposits in the Nakhichevan
A.S.S.R. Zap.Vses.min.ob-va 90 no.4:451-458 '61. (MIRA 14:9)

1. Institut geologii AN Azerb SSR, Baku.
(Nakhichevan A.S.S.R....Pyrite crystals)

DZHAFAROV, Ch.D.

Striation on pyrite crystal faces due to oscillatory combinations and its importance in the determination of crystallization conditions. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk i nefti no.6:93-104 '62. (MIRA 16:4)

(Pyrite crystals)

DZIAFAROV, Ch.D.

Effect of impurities on the lattice parameters and shape of pyrite.
Rent,min.syr. no.3:35-43 '63. (MIRA 17:4)

1. Institut geologii AN Azerbaydzhanskoy SSR.

MOKIYEVSKIY, V.A.; DZHAFAROV, Ch.D.

Prospects for the photogoniometric studies of crystals with a complex surface. Zap.Vses.min.chrva 92 no.1:15-25 '63. (MIRA 16:4)
(Goniometry)

DZHAFAROV, Ch.P.

Face morphology of pyrites from deposits in Azerbaijan.
Dokl. AN Azerb. SSR 20 no.7:15-19 '64. (MIRA 17:11)

1. Institut geologii AN AzerSSR. Predstavлено akademikom
AN AzerSSR M.A. Kashkayem.

DZHAFAROV, Ch.D.

Zonal structure of pyrite crystals and the causes of their growth
irregularities. Geol. rud. mestorozh. 6 no.4:87-92 Jl-Ag '64.
(MIRA 17:10)

1. Institut geologii AN AzerSSR, Baku.

DZHAFAROV, D. R.

DZHAFAROV, D. R.

Cand. Veterinary Sci.

"Concerning the Pharmacodynamics of Hexetone." Sub 31 Oct 47, Moscow
Zooveterinary Inst

Dissertations presented for degrees in science and engineering in
Moscow in 1947.

SO: Sum.No. 457, 18 Apr 55

BAKHCHUSARAYTS'YAN, N.G.; FIOSHIN, M.Ya.; DZHAFAROV, E.A.; KRIZOLITOVA, M.A.

Use of lead dioxide anodes in the electrolysis of isobuturic acid.
Zhur.prikl.khim. 35 no.7:1643-1644 Jl '62. (MIRA 15:8)
(Lead oxide) (Electrolysis) (Isobuturic acid)

BAKHCHISARAYTS'YAN, N.B.; DZHAFAROV, E.A.

Electrodeposition of lead dioxide from alkaline plumbite electrolytes.
Dokl.AN Azerb.SSR 17 no.9:785-788 '61. (MIRA 15:3)

1. Moskovskiy khimiko-tehnologicheskiy institut imeni Mendeleyeva.
Predstavлено академиком АН АзССР Ю.Г.Мамедалиевым.
(Electroplating) (Lead oxides)

BAKHCHISARAYTS'YAN, N.G.; DZHAFAROV, E.A.

Use of insoluble anodes of lead dioxide in the processes of
electrochemical synthesis. Izv. vuz. khim. zhur. no.3:109-115 '62.
(MIRA 16:12)

DZHAFAROV, E.A.

Electrodeposition of lead dioxide from alkaline plumbite electrolytes.
Azerb.khim.zhur. no.6:103-109 '63. (MIRA 17:3)

BAKHCHISARAYTS'YAN, N.G.; DZHAFAROV, E.A.

Internal stresses of electrolytic deposits of lead dioxide
obtained from alkaline plumbite electrolytes. Dokl. AN Azerb.
SSR 19 no.6c31-34 '63 (MIRA 1737)

1. Institut khimii AN AzerSSR. Predstavleno akademikom AN AzerSSR
M.A. Dalinym.

DZHAFAROV, E.A.

Electrodeposition of lead dioxide from alkaline complexon
salt electrolytes. Dokl. AN Azerb. SSR 19 no.10:31-34 '63.
(MIRA 17:6)
1. Institut khimii AN AzSSR. Predstavлено академиком AN
Azerbaydzhanskoy SSR. M.A. Dalinym.

ACCESSION NR: AP4042950

8/0249/64/020/004/0039/0043

AUTHOR: Shakhtakhtinskiy, G. B.; Dzhafarov, E. A.; Shakarov, G. A.

TITLE: Selection of a method of gallium extraction in the process of multipurpose treatment of alunite

SOURCE: AN AzerbSSR. Doklady*, v. 20, no. 4, 1964, 39-43

TOPIC TAGS: gallium extraction, alunite treatment, bauxite treatment, alumina production, Bayer process, fractional carbonation method, electrolytic method

ABSTRACT: Methods are reviewed for gallium extraction from alkaline aluminate solutions recycled in the processes of alunite treatment. The fractional carbonation method and electrolysis with a mercury cathode (the Breteque method) are described briefly, since these methods are used for gallium extraction in the process of bauxite treatment for the production of alumina. Application of the first method for gallium extraction in the new alumina production setup

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ACCESSION NR: AP4042950

from alumite is ruled out, since the Bayer process with centrifuging was adopted for recovering the alumina; in this case, the application of fractional carbonation would diminish the quantity of recycled alkaline solution and would cause a great loss in gallium. Applicability of the electrolytic method was studied experimentally using synthetic solutions containing, in addition to Al_2O_3 and Na_2O , varied amounts of potassium and/or sodium sulfates and about 0.3 g/l gallium. The plots of gallium concentration versus time of electrolysis show that SO_4^{2-} concentration has no appreciable effect on the gallium output, which remained relatively high(8—11%) even in solutions saturated with sulfates. Therefore, electrolysis with a mercury cathode is recommended for gallium extraction from alkaline aluminate solutions obtained in the process of the multipurpose treatment of aluminites. Orig. art. has: 1 figure.

ASSOCIATION: Institut khimii AzerbSSR (Institute of Chemistry, AzerbSSR)

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Card 2/2

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OTHER: 003

FIOSHIN, M.Ya.; DZHAFAROV, E.A.

Electrochemical method of production of some monocarboxylic acids. Dokl. AN Azerb. SSR. 21 no.5:25-29 '65. (MIRA 18:9)

1. Institut khimii AN AzerSSR.

DZHAFAROV, E.M.; GRIGOR'YANTS, B.V.

New find of vein rocks in the Belokany ore zone. Uch. zap.
AGU. Ser. geol. geog. nauk no.1:25-31 '61. (MIRA 16:8)

GUSEYNOV, B.Z.; DZHAFAROV, F.S.

Effect of organic fertilizers of petroleum origin on the water
economy, growth, and development of the cotton plant. Izv. AN
Azerb. SSR. Ser. biol. i med. nauk no.6:29-35 '60. (MIRA 14:9)
(AZERBAIJAN--COTTON--FERTILIZERS AND MANURES)
(PETROLEUM INDUSTRY--BY-PRODUCTS)

DZHAFAROV, G.I. (Moskva)

Nonisothermal flow of a viscoplastic noncompressible fluid
between two rotating cylinders. Izv. AN SSSR. Mekh. i
mashinostr. no.6:100-101 N-D '63. (MIRA 17:1)

GUSEYNOV, A.G.; DZHAFAROV, G.I.

Effect of the stimulation of rectal receptors on the content of inorganic phosphorus and calcium in the blood of normal animals and after cerebelloectomy. Trudy Sekt.fiziol.AN Azerb.SSR 7:60-70 '63. (MIRA 17:10)

DZhAFAROV, G. K., Cand. Med. Sci., -- (diss) "Properties toxic for paramicca
of animal blood plasmas during acute radiation sickness," Kharkov, 1961, 20 pp
(Kharkov State "edical Institute), 200 copies (KL-Supp 9-61, 189)

DZHAFAROV, G.A.K. (Baku)

Toxicity for paramecia of plasma from healthy and irradiated rats
following burns, trauma and starvation. Pat. fiziol. i eksp. terap.
5 no.4:70-71 Jl-Ag '61. (MIRA 14:9)

1. Iz laboratorii patologicheskoy fiziologii Khar'kovskogo instituta
meditsinskoy radiologii i Azerbaydzhanskogo instituta rentgenologii
i onkologii.

(BURNS AND SCALDS) (WOUNDS AND INJURIES)
(STARVATION) (RADIATION--PHYSIOLOGICAL EFFECT)
(PARAMECIUM)

DZHAFAROV, G.A.K. [Dzhafarov, H.A.K.]

Changes in the toxic effect on paramecia by the blood plasma of monkeys with acute radiation sickness. Fiziol. zhur. [Ukr.] 7 no.1:93-100 Ja-F '61. (MIRA 14:1)

1. Baku Roentgeno-radiological and Oncological Institute and Kharkov Institute of Medical Radiology.
(GAMMA RAYS--PHYSIOLOGICAL EFFECT)
(BLOOD PLASMA)

DZHAFAROV, G.A.K.

Changes in properties toxic to paramecia in blood plasma from
rabbits and ~~monkeys~~ with acute radiation sickness. Med.rad.
no.9:38-45 '61. (MIRA 15:1)

1. Iz Bakinskogo rentgeno-radiologicheskogo i onkologicheskogo
instituta i patofiziologicheskoy laboratorii Khar'kovskogo
instituta meditsinskoy radiologii.
(RADIATION SICKNESS) (BLOOD PLASMA) (PARAMECIUM)

ARNAUTOV, A. K.; BURSHTEYN, S. A.; GENES, V. S.; DZHAFAROV, G. K.;
KOGAN, I. A.; MAMOTYUK, Ye. M.; NIKOLAYEVA, M. G.; PISKAREVA,
Ye. V.; POPOVA, L. Y.; TKACH, V. K.; FASTYUCHENKO, O. V.;
FRENKEL', L. A.; TSYBENKO, P. A.

Characteristics of some early reactions of rats, irradiated
with various doses, to burning by flame. Radiobiologija 2 no.3:
406-413 '62. (MIRA 15:7)

1. Institut meditsinskoy radiologii, Khar'kov.

(X RAYS--PHYSIOLOGICAL EFFECT)
(BURNS AND SCALDS)

L 17552-63

EWT(1)/EWT(m)/EDS/BS(j) - AMD/AFFTC/ASD AR/K

ACCESSION NR: AT3002373

S/2930/62/000/000/0140/0146

AUTHOR: Arnautov, A. K. (Kharkov); Dzhafarov, G. K. (Kharkov)

TITLE: Early blood plasma toxicity changes in acute radiation sickness in rats

SOURCE: K voprosam ranney diagnostiki ostroy luchevoy bolezni; sbornik nauchnykh rabot. Kiev, Medgiz USSR, 1962, 140-146

TOPIC TAGS: blood plasma toxic property , acute radiation sickness, paramecium reaction method, X-irradiation

ABSTRACT: To determine blood plasma toxicity a paramecium reaction method was used which requires less time and is much simpler than the transfusion method (in which blood is transfused from the irradiated subject to the non-irradiated subject). The greater the toxicity the fewer the number of seconds it takes to kill off the paramecium. In this investigation the paramecium reaction took from 4 to 10 mins. Rats were exposed to single doses of total X-irradiation (RUM-unit, 28.5-32.5 r/min) ranging from 150 to 1500 r. Blood plasma toxic properties were tested 1, 24, 48, and 72 hrs after irradiation. It was found that the blood plasma toxic properties for rats exposed to Card 1/B

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0

1500 r decrease significantly. Toxic properties for rats exposed to 1200 r increase 1 hr after irradiation and remain at this level up to the second day. After 48 hrs they decrease and after 72 hrs increase considerably again. For radiation doses of 1050, 900, 750, 600, and 450 r toxic properties increase 1 hr after irradiation and after 24 hrs continue to increase, especially for 1050 and 750 r, and increase least for 600 r. After 48 hrs the toxic properties for these doses decrease considerably and after 72 hrs increase again. However, for 150, 300, and 1500 r after 48 hrs the toxic properties do not increase and in fact decrease. Only on the 3d day for 150 r do they increase to the initial level, but for 300 and 1500 r they remain lower than the initial levels. It appears that the toxic property changes are connected with some kinds of systems in the organism which control the toxicity level and which react to 450-1200 r by intensifying their function. But 1500 r depresses the activity of these systems together with the other systems of the organism. Decrease in blood system toxicity for 150-300 r may be connected with activation of some other counterregulatory systems whose activity is directed to eliminating these substances from the organism or neutralizing them. Orig. art.

has: 2 figures, 1 table.

ASSOCIATION: Kharkov Institute of Medical Radiology

Card 2/12

DZHAFAROV, G.D.

[REDACTED] Geological data obtained by electrical prospecting conducted in the Caspian Sea region of Azerbaijan [in Azerbaijani with summary in Russian]. Azerb.neft.khoz. 36 no.3:5-7 36 no.3:5-7 Mr '57. (MLRA 10:5)

(Azerbaijan--Prospecting--Geophysical methods)
(Azerbaijan--Petroleum Geology)

DZHAFAROV, G.M.

Some applications of the affine transformation of a plane in
investigating the strength of stone masonry. Trudy API 12:112-122
'60. (MIRA 16:6)
(Transformations (Mathematics)) (Masonry)

DZHAFAROV, G. M.

Dzhafarov, G. M. - "A graphical analytic method for planning transport of building materials to a construction job," Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 1, p. 18-23 -- Summary in Azerbaijani --- Bibliog: 11 items

DZHAFAROV, G.M.

DZHAFAROV, G. M.

Dzhafarov, G. M. - "An analytic method for determining the most convenient location for lifting equipment for an installation under construction", Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 2, p. 64-69. (Resume in Azerbaijani), - Bibliog: 7 items.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

15-57-1-689

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
p 109 (USSR)

AUTHOR: Dzhafarov, G. M.

TITLE: The Physical-Mechanical and Elastic Properties of
Limestone Building Stone From the Karadag Deposit
(Issledovaniye fiziko-mekhanicheskikh i uprugikh
svoystv stenovogo kamnya-izvestnyaka Karadagskogo
mestorozhdeniya)

PERIODICAL: Sb. tr. Azerb. n.-i. in-t stroit. materialov i sooruzheniy, 1956, Nr 5, pp 70-81.

ABSTRACT: Experimental studies of prismatic samples from the
limestones in the Karadag deposit of Azerbaijan have
shown that the yield strength of samples during direct
shearing (R_{sh}), depending on the state and stratifi-
cation of the rock, is $R''_{ye/v} = 0.75 R'_{ye/v} = 1.375 R'_{n/v} =$
 $0.98 R''_{n/v} = 19.23 \text{ kg/cm}^2$.

Card 1/1

V. P. Ye.

DZHAFAROV, G.M.; MAMEDALIYEV, M.G.

Study of the cohesiveness of mortars with stone in maonry work
with certain shell limestones from Baku quarries. Izv.AN Azerb.
SSR no.9:3-16 S '56. (MLRA 9:11)
(Baku--Building stones) (Mortar)

DZHAFAROV, G.M.; KUZNETSOV, B.N.

Heat insulating material made of silicate glue. Stroi.mat. 5
no.12:36-37 D '59. (MIRA 13:3)
(Insulator (Heat))

DZHAFAROV, G.M., kand.tehn.nauk

Coarse concrete made with crushed low-strength limestone for rural
construction. Bet. i zhel.-bet. no.8:377-379 Ag '60.

(MIRA 13:8)

(Concrete) (Limestone)

S/044/61/000/011/001/049
C111/C444

AUTHOR:

Dzhafarov, G. M.

TITLE:

Some applications of the affine transformation of the plane for the investigation of the solidity of stone masonry

PERIODICAL:

Referativnyy zhurnal. Matematika, no. 11, 1961, 43.
abstract 11A309. (Tr. Azerb. gos. ped. in-ta, 1960, 12,
112 - 122).

TEXT: In order to be able to examine the limit solidity of a stone masonry under central or excentral compression by aid of model tests, there is proposed a method basing on the affine transformation of the plane. The plane ω be determined by the data of the model pieces; the plane ω' be generated by transformation of ω and be defined by three points, not lying on the same straight line, which characterise the solidities of the searched real constructions. Between the coordinates of the running points of ω and ω' there exists a linear dependence.

There follows: If one fixes a certain dependence between the solidity of the model masonry and the mark of its openings

Card 1/2

Some applications of the affine...

S/044/61/000/011/001/049

C111/C444

(coordinates of the point in a plane), it becomes possible to determine the rule for the real masonry.

[Abstracter's note: Complete translation]

Garn - 2/2

DZHAFAKOV, G.M., kand.tekhn.nauk; ZDOBNOV, Ye.I., kand.tekhn.nauk; STEPANIAN,
Ye.S., inzh.; AKHUNDZOVA, G.A., inzh.

Porous ceramic tiles for the drainage of saline soils. Gidr. i sel.
13 no.1:32-39 Ja '61. (MITA 14:2)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii.
(Azerbaijan--Drain tiles)

DZHAFAROV, G.M., kand.tekhn.nauk; MIRZA, A.S., inzh.

Manufacture of perforated drain pipes. Stroi.mat. 8 no.7:25-
26 Jl '62. (MIRA 15:8)
(Pipe, Clay)

L 23738-66 EWT(m)/T

ACC NR: AP6014819

SOURCE CODE: UR/0367/65/001/004/0665/0667

AUTHOR: Dzhafarov, I. G., Jafarov, I. G.

23

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

B

TITLE: Production of pseudoscalar mesons by colliding electron-positron beams

SOURCE: Yadernaya fizika, v. 1, no. 4, 1965, 665-667

TOPIC TAGS: meson, lepton, positron, electron, particle cross section

ABSTRACT: The creation of pseudoscalar meson pairs in the annihilation of longitudinally polarized leptons and antileptons is investigated, taking into account the form factors of all participating particles. General formulas are obtained for the differential and total cross sections, and they are analyzed with respect to lepton spin states. Formulas are also given for the inverse process - the lepton annihilation of pseudoscalar mesons. The author thanks Professor A. A. Sokolov and B. K. Kerimov for their discussions of the results of this work. Orig. art. has 12 formulas. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 20 / SUBM DATE: 18Sep64 / ORIG REF: 004 / OTH REF: 004

Card 1/1 ✓

* 1512-45 EAT(m)/SNA(m)-2 AFWL/SSD/ASD(a)-5/AFTR/PABM(s)/ESD(rs)/ESD(t)
(04/11/91)

Badykhov, F. S.; Dzhaferov, I. G.; Yakh'yayev, R. Sh.

Production of electron-positron/proton pairs

and experimental'noy i teoretičeskoye izuchenie

pair production, proton, antiproton, deuteron beams,
positron beam, polarization, etc., in the case of annihilation

The authors investigated the production of electron-positron-proton-antiproton pairs at the point of annihilation of two particles and the longitudinal and transverse components of the energy involved (although at present it is not clear whether it is true that electrons have a finite lifetime). They obtained expressions for the angular and energy distributions of the pairs. These expressions permit an exact calculation of the

L 15012-65

ACCESSION NR: AP4047913

the form factors of the particles on the basis of one longitudinal spin correlation were made in the lowest order of the only single-photon exchange. The moment-position vertices are given in view of the possibility of an experiment destined to study hadrodynamics at very high energy. The dependence of the degree of longitudinal polarization of the proton-
neutron system shows that at small angles the nucleons have a similar behavior, having a spin correlation energy independent of the interaction. The fraction of proton longitudinal polarization increases with energy, whereas the same dependence is weak. It is shown that the longitudinal polarization is smaller than for the deuteron. (See also, A. I. Mikheyev, "On the results," Oriz. Larg., No. 1, 1970.)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411820008-7

424047913

USSR Soviet Academy of Sciences
Russia, Academy of Sciences

10 Apr 59

SNCL: 90 SUBJ CODE: 00

OTHER:

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411820008-7"

REF ID: A7(m)/E6A(m)-2
ACKERSON NR: AP5018368

MB/0120/94 1000 1000 1000 1000

Shapiro, I. B.

Number of electron-positron pairs in neutrino scattering

Phys. Rev. C, 1984, 30(1):4

Electron, proton, antiproton

Abstract: Calculations of the number of longitudinally polarized photons produced in neutrino scattering are carried out taking into account the form factors of the nucleon and the formulae for the differential cross sections in terms of longitudinal polarization. The effects of form factors are shown to be small. It is shown that the experimental distribution of the correlation $S_e S_g \approx 1$ in the magnetic state of an electron is reproduced by the graphs.

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411820008-7

REF ID: A65018368

Moskovskiy gosuniversitet imeni M. V. Lomonosova

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000411820008-7"

DZHAFAROV, I.G.

Production of pseudoscalar mesons in colliding electron-positron
beams. IAd. fiz. 1 no.4:665-667 Ap '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet.

DZHAFAROV, KH, Prof

PA 41T76

USSR/Medicine - Syphilis
Medicine - Chemotherapy

Jan/Feb 1948

"An Experiment with a Concentrated Method of Treating Syphilis," Prof Kh. Dzhafarov, Director, First Dermatol Clinic; G. Yagubov, First Dermatol Clinic, Azerbaijan Med Inst, 1 $\frac{1}{2}$ pp

"West Vener i Dermat" No 1

Experiments with a highly concentrated treatment of syphilis gave following results: 1) Increase of the daily mapharsen dose to 0.03 does not produce any ill effects in the patients; 2) thin increased dose (0.03) does not have any adverse effect on the functions of the kidneys or the liver; and 3) this con-

41T76

USSR/Medicine - Syphilis (contd) Jan/Feb 1948

centrated method cuts the course of the ordinary treatment by 14 days.

41T76

DZHAFAROV, Kh. D., Cand Geol-Min Sci -- (diss) "Plutonic tectonics of the near-Caspian region of Azerbaydzhan SSR in the light of geophysical data." Baku, 1957. 21 pp (Min of Higher Education USSR, Azerbaydzhan Order of Labor Red Banner Industrial Inst im M. Azizbekov), 100 copies (KL, 1-58, 116)

- 22 -

DZHAFAROV, Kh.D.

Interpreting materials from electrical prospecting carried out in
1951-1954 in the Caspian Sea region of Azerbaijan. Trudy Azerb. Ind.
inst. no.16:39-48 '57. (MIRA 11:9)
(Caspian Sea region--Prospecting--Geophysical methods)

DZHAFAROV, Kh.D.

Subsurface tectonics of the Caspian Sea region in Azerbaijan, based
on geophysical data. Trudy Azerb. ind. inst. no.17:37-49 '57.

(MIRA 11:9)

(Caspian Sea region--Geology, Structural)

DZHAJAROV, Kh.D.

Geological interpretation of gravitational prospecting data on the
Caspian-Kuba region in the Azerbaijan S.S.R. Izv. vys. ucheb. zav.;
neft' i gaz 2 no.10:9-12 '59.
(MIRA 13:2)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.
(Azerbaijan--Gravity)

14(5)
AUTHOR:Dzhafarov, Kh. D.

TITLE:

The Interpretation of the Curves of the Vertical Electric
Sounding (VES) of Type KN (K interpretatsii krivykh
vertikal'nogo elektricheskogo zondirovaniya (VEZ) tipa KN)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959,
Nr 3, pp 11-16 (USSR)

ABSTRACT:

The complicated seismological conditions of the promontory
region of Azerbaijan set a limit to the application of
seismological investigation. Consequently the electric sounding
of depth is predominantly used, whereby difficulties arise for
the geoelectric cross sections through several layers. The
majority of the curves obtained in such areas belong to the
type KN ($\rho_1 < \rho_2 > \rho_3 < \rho_4$; $\rho_1, 2, 3, 4$ - resistance of the
layers 1, 2, 3, 4). The methods of interpretation used up to
now lead to great mistakes in the determination of the depth
of the bearing horizon if there exist no measurements made by
boring. A method is described which applies the coordinates made by
the maxima of the vertical-electric curves of sounding. Two
diagrams are established on the basis of a theoretical series

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The Interpretation of the Curves of the Vertical
Electric Sounding (VES) of Type KN

of sounding results in four layers. The first represents the
dependence of $\frac{s}{s_1}$ on the parameter A at $\rho_3 = \text{const.}$ and $\rho_4 = \infty$
(s_1 = the conductivity of the first layer, s = the conductivity
of the layer above the bearing horizon). The parameter A is
calculated according to the formula

$$A = \frac{\rho_{\min}}{\rho_1} + \frac{\rho_{\max}}{\rho_1} + \frac{\left(\frac{AB}{2}\right)_{\min}}{h_1} + \frac{\left(\frac{AB}{2}\right)_{\max}}{h_1}$$

where $\rho_{\min}, \left(\frac{AB}{2}\right)_{\min}$ and $\rho_{\max}, \left(\frac{AB}{2}\right)_{\max}$ denote the coordinates

The Interpretation of the Curves of the Vertical
Electric Sounding (VES) of Type KN

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of the minima and maxima of the sounding curve, $\rho_4 = \infty$ is the resistance of the bearing horizon. The second diagram shows the dependence $\frac{s}{s_1}$ on $\frac{h_2 + h_3}{h_1}$ at $\frac{\rho_3}{\rho_1} = \text{const.}$ Now the left branches of the curves of two neighboring soundings with the layer curves of pallet GP2-1 are compared and the thicknesses h_1 and h_1' , as well as the resistances ρ_1 and ρ_1' are therefrom determined. From these the conductivities s and s_1 are calculated. Moreover, the coordinates of the maxima are obtained from these curves. On substituting the values into the formula one obtains the value of A for two sounding curves. $\frac{\rho_3}{\rho_1}$ is now determined by substituting the values of the two measuring points into the coordinate system $\frac{s}{s_1}$, A and $\frac{s_1'}{s_1}$, A'.
Card 3/5 The connecting line gives the dependence $\frac{s}{s_1}$ on A at $\frac{\rho_3}{\rho_1} = \text{const.}$

The Interpretation of the Curves of the Vertical
Electric Sounding (VES) of Type KN

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The value of $\frac{f_3}{f_1}$ is determined by axial parallel shifting the curve plotted in diagram 1 until it either coincides with one of the theoretical curves or lies between two such curves. Then the value for $\frac{h_2 + h_3}{h_1}$ is determined by means of diagram 2.

The values $\frac{s}{s_1}$ and $\frac{s'}{s'_1}$ are substituted into the diagram and parallels are drawn to the abscissa until the intersection with the curve which corresponds to the determined module

$\frac{f_3}{f_1}$. The abscissae of the intersections yield the desired values

$\frac{h_2 + h_3}{h_1}$ and $\frac{h'_2 + h'_3}{h'_1}$. From the equations $H_b = h_1 + h_2 + h_3$ and

$H'_b = h'_1 + h'_2 + h'_3$ the depth of the bearing horizon may be

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The Interpretation of the Curves of the Vertical
Electric Sounding (VES) of Type KN

SOV/152-59-3-3/25

calculated. The calculation is demonstrated by an example.
The error lies below 10%. There are 3 figures.

ASSOCIATION: Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova
(Azerbaydzhar Industrial Institute meni M. Azizbekov)

SUBMITTED: November 10, 1958

Card 5/5

DZHAFAROV, Kh.D.

Tectonic pattern of the Caspian-Kuban oil-bearing province.
Azerb. neft. khoz. 38 no.8:4-6 Ag '59. (MIRA 13:2)
(Kuban--Geology, Structural)
(Caspian Sea region--Geology, Structural)

DZHAFAROV, Kh.D.

New data on the geology of the Agdzhabedy-Zhdanovsk region in the
Kirovabad oil-bearing province. Izv. vys. ucheb. zav.; neft.'
i gaz 3 no.11:15-18 '60. (MIRA 14:1)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Kirovabad region (Azerbaijan)- Petroleum geology)

DZHAFAROV, Kh.D.

Interpretation of vertical electrical probing curves by the
extreme point method. Izv. vys. ucheb. zav.; neft' i gaz 3
no.4:23-27 '60. (MIRA 15:6)

1. Azerbaydzhan'skiy institut nefti i khimii imeni Azizbekova.
(Electric prospecting)

DZHAFAROV, Kh.D.

Effectiveness of electric prospecting in the Agdzhabedi-Zhdanovsk
area of the Azerbaijan S.S.R. Azerb. neft. khoz. 40 no.1:6-
8 Ja '61. (MIRA 14:8)
(Azerbaijan--Electric prospecting)

DZHAFAROV, Kh.D.

Determination of the coefficient of anisotropy of KN type
four-layer cross sections using vertical electric curves.
Izv. vys. ucheb. zav.; neft' i gaz 4 no.9:11-18 '61. (MIRA 14:12)

1. Azerbaydzhanskiy institut nefti i khimii imeni Azizbekova.
(Electric prospecting)

SHAPIROVSKIY, Natan Il'ich; GADZHIYEV, R.M.; DZHAFAROV, Kh.D., red.;
RASHEVSKAYA, T.A., red. izd-va; NASIROV, N., tekhn. red.

[Geophysical prospecting at sea] Morskaia geofizicheskaiia razvedka. Baku, Azerbaidzhanskoe gos.izd-vo, 1962. 154 p.
(MIRA 15:9)
(Caspian Sea--Prospecting--Geophysical methods)

ABDULLAYEV, R.A.; DZHAFAROV, Kh.D.; ALI-ZADE, A.A., akademik;
SHTEVNGEL', A.S., red., izd-va; BAGIROVA, S., tekhn. red.

[Geological and geophysical characteristics of the oil- and
gas-bearing area in Caspian Sea region of Azerbaijan] Geologo-
geofizicheskaisa kharakteristika Prikaspiskogo neftenosnogo
raiona Azerbaidzhana. Baku, Azerbaidzhanskoe gos. izd-vo,
1962. 164 p. (MIRA 15:12)

(Azerbaijan--Geology)
(Azerbaijan--Prospecting--Geophysical methods)

DZHAEAROV, Kh.D.

Effective use of combined geophysical prospecting methods in Azerbaijan as revealed by the studies of the Caspian-Kuba area.
Izv.vys.ucheb. zav.;neft' i gaz 5 no.5:9-13 '62. (MIRA 16:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Azerbaijan--Prospecting--Geophysical methods)